

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A general purpose hand for a multiaxis manipulator for handling objects, comprising:

a frame member mounted to an arm of the multiaxis manipulator; and

a suction holder supported on the frame member and operative to move relative to the frame member, the suction holder comprising:

a suction pad to be sucked onto the handled object;

a rod member for rotatably supporting the suction pad, the rod member being axially movable relative to the frame member;

a resilient member for pressing the suction pad toward the handled object;

a first locking mechanism for locking axial movement of the rod member, the first locking mechanism comprising a ball member guided to move toward the rod member, a brake shoe interposed between the ball member and a lateral side of the rod member, and a piston member having a tapered surface to press the ball member against the brake shoe to thereby press the brake shoe against the rod member; and

a second locking mechanism for locking rotation of the suction pad.

2. (Previously presented) The general purpose hand according to claim 1, further comprising:

a plurality of first and second suction holders provided on the frame;

a first axis in which the first suction holder is moved to slide; and

a second axis in which the second suction holder is allowed to slide together with the first suction holder, wherein

the first axis is controlled by an axis controller of the multiaxis manipulator.

3. (Previously presented) The general purpose hand according to claim 2, wherein

the first and second suction holders are linked by a third locking mechanism for locking spacing between the first and second suction holders, and

the second suction holder is provided with a brake unit which is actuated when the third locking mechanism is not actuated, and released when the third locking mechanism is actuated, and wherein

the first and second suction holders are slidable together with each other while the third locking mechanism is actuated, and merely the first suction holder is slidable while the third locking mechanism is not actuated.

4. (Currently amended) A general purpose hand for a multiaxis manipulator which handles a body side outer including a rear fender, the body side outer being provided with a door opening, the hand comprising:

a frame member mounted to an arm of the multiaxis manipulator;

a gauge clamp supported on the frame member, for gripping a flange provided around the door opening of the body side outer; and

a suction holder for holding the rear fender of the body side outer, supported on the frame member and operative to move relative to the frame member, the suction holder comprising:

a suction pad to be sucked onto an inner surface of the rear fender;

a rod member for rotatably supporting the suction pad, the rod member being axially movable relative to the frame member;

a resilient member for pressing the suction pad toward the body side outer;

a first locking mechanism for locking axial movement of the rod member, the first locking mechanism comprising a ball member guided to move toward the rod member, a brake shoe interposed between the ball member and a lateral side of the rod member, and a piston member having a tapered surface to press the ball member against the brake shoe to thereby press the brake shoe against the rod member; and

a second locking mechanism for locking rotation of the suction pad.

5. (Currently amended) A general purpose hand for a multiaxis manipulator for handling objects, comprising:

a frame member mounted to an arm of the multiaxis manipulator; and

a holding means supported on the frame member and operative to move relative to the frame member, the holding means comprising:

a suction pad to be sucked onto the handled object;

a rod member for rotatably supporting the suction pad, the rod member being axially movable relative to the frame member;

a resilient member for pressing the suction pad toward the handled object;

a first locking mechanism for locking axial movement of the rod member, the first locking mechanism comprising a ball member guided to move toward the rod member, a brake shoe interposed between the ball member and a lateral side of the rod member, and a piston member having a tapered surface to press the ball member against the brake shoe to thereby press the brake shoe against the rod member; and

a second locking mechanism for locking rotation of the suction pad.

6. (Canceled)

7. (Previously presented) The general purpose hand according to claim 1, wherein

the rod member is hollow through which negative pressure is introduced to the suction pad.

8. (Previously presented) The general purpose hand according to claim 1, wherein

the second locking mechanism comprises a spherical member fixed to the suction pad, first and second contact members to be pressed toward each other against the spherical member therebetween, a cylinder having a piston connected to the first contact member and a cylinder body fixed to the second contact member.

9. (Previously presented) The general purpose hand according to claim 8, wherein

the spherical member, the first contact member and the piston of the cylinder are hollow through which negative pressure is introduced to the suction pad.

10. (Currently amended) The general purpose hand according to claim 1, further comprising:

a plurality of the suction holders operative to move closer to and away from each other.